

WHAT IS CLAIMED IS:

1. A wireless communication apparatus
5 comprising:

a multipath detection part which detects a
state of multipath in said wireless communication
apparatus; and

a send part which sends multipath
10 detection information detected by said multipath
detection part to a wireless communication apparatus
at the other end.

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2. A wireless communication apparatus
comprising:

a multipath component canceling signal
20 generation part which generates a signal which
cancels a multipath component in a wireless
communication apparatus at the other end on the
basis of multipath detection information
representing a state of multipath sent from said
25 wireless communication apparatus at the other end;
and

a send part which sends said signal which
cancels said multipath component generated in said
multipath component canceling signal generation part
30 to said wireless communication apparatus at the
other end.

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3. The wireless communication apparatus as
claimed in claim 2, said multipath component

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an interference wave detection part which detects an interference wave occurring between said multipath component and a send wave.

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a filter part which filters a synthesized wave of said multipath component and said send wave; and

an interference wave signal generation part which generates an interference wave signal corresponding to that in said wireless communication apparatus at the other end by comparing output signal from said filter part and said send wave.

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an opposite phase part which changes a phase of said interference wave signal to an opposite phase of said phase; and

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a send part which sends said interference wave signal having said opposite phase to said wireless communication apparatus at the other end.

35 9. A wireless communication method
comprising the steps of:

a first wireless communication apparatus
detecting a state of multipath in said first
wireless communication apparatus;

5 said first wireless communication
apparatus sending multipath detection information on
said state to a second wireless communication
apparatus;

10 said second wireless communication
apparatus receiving said multipath detection
information;

15 said second wireless communication
apparatus generating a signal for canceling a
multipath component in said first wireless
communication apparatus on the basis of said
multipath detection information; and

20 said second wireless communication
apparatus sending said signal for canceling said
multipath component to said first wireless
communication apparatus.

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